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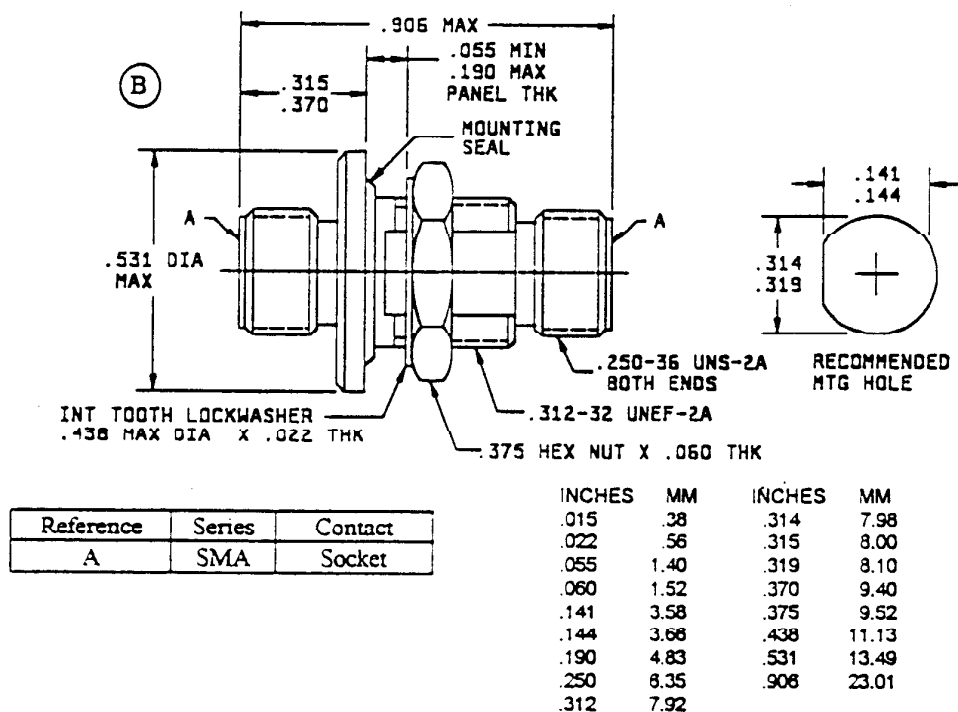
MIL-PRF-55339/28B
23 March 1988
SUPERSEDING
MIL-A-55339/21A
28 February 1979

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE JAMNUT MOUNTED,
(WITHIN SERIES SMA PLUG TO SERIES SMA PLUG
(HERMETIC AND NON-HERMETIC)), CLASS 2

This specification is approved for use by all Departments and Agencies of the Department of Defense.

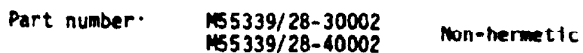
The complete requirements for acquiring the adapters described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339.



Part number M55339/28-30001 Hermetic
M55339/28-40001

(B) FIGURE 1. General configuration.

(B) denotes change



1. Dimensions are in inches.
2. Metric equivalents are given for general information only
3. All undimensioned pictorial representations are for reference purposes only.
4. Unless otherwise specified, tolerance are ± 0.005 (0.13 mm) on three place decimals and ± 0.010 (0.25 mm) on two place decimals
5. Interfaces shall be per MIL-STD-348.

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage:

Sea level: 335 V rms.

70,000 feet: 85 V rms.

Frequency range: 0.5 to 12.4 gigahertz (GHz).

Temperature range: -65°C to +165°C.

PERFORMANCE:

Dimensions: See figure 1 and MIL-STD-348.

Center contact retention:

Axial force: 6 pounds, minimum.

Torque: Not applicable.

Force to engage and disengage:

Longitudinal force: Not applicable.

Torque: 2 inch-pounds maximum.

Mating characteristics:

Center contact (socket):

Oversize test pin diameter: .0375 \pm .0001 inch minimum.

Pin finish: 16 microinches.

Insertion depth: .030/.045 inch minimum.

Number of insertions: 3.

Maximum test pin (insertion force test):

Steel test pin diameter: .0370 \pm .0001 inch minimum.

Pin finish: 16 microinches.

Insertion force: 3 pounds, maximum.

Insertion depth: .050/.075 inch minimum.

Number of insertions: 1.

Minimum test pin (withdrawal force):

Steel test pin diameter: .0355 \pm .0001 inch minimum.

Pin finish: 16 microinches.

Withdrawal force: 1 ounce, minimum.

Insertion depth: .050/.075 inch minimum.

Number of withdrawals: 1.

⑧ Permeability: Applicable to non-hermetic adapters.

⑧ Seal: Applicable to hermetic adapters only:

Hermetic: Leakage through the connector shall not exceed 1×10^{-7} cc/s of tracer gas at atmospheric pressure.

Pressurized: Not applicable.

Weatherproof: 30 psi maximum mounting seal.

Insulation resistance: 5,000 megohms, minimum.

VSWR: $1.10 \pm .015$ F(GHz) at 0.5 to 12.4 GHz.

RF leakage (total): -60 dB, minimum, 2 to 3 GHz.

RF insertion loss: $.15 \sqrt{F(\text{GHz})}$ dB maximum, tested at 6 GHz.

MIL-A-55339/288

Durability: 500 cycles minimum at 12 cycles per minute maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Dielectric withstanding test voltage: 1,000 V rms, minimum (sea level).

⑧ Contact resistance (milliohms, maximum):

<u>Non-hermetic</u>			<u>Hermetic</u>		
<u>Contact</u>	<u>Initial</u>	<u>After</u>	<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	8.0	10.0	Center	12.0	12.0
Outer	4.0	Not applicable	Outer	4.0	Not applicable
Non-hermetic			Hermetic		

Vibration, high frequency: Interruptions, 1 microsecond (μs), maximum. Test condition D.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, minimum.

Corona level:

Voltage: 250 V, minimum.

Altitude: 70,000 feet, minimum.

RF high potential withstanding voltage:

RF voltage: 670 V rms, minimum.

Frequency: 5 megahertz (MHz), minimum.

Salt spray (corrosion): Test condition B.

MARKING: As specified in MIL-A-55339.

⑧ Part number: M55339/28-30001, M55339/28-40001, M55339/28-30002, M55339/28-40002.

Group qualification: See table I.

⑧ TABLE I. Group qualification.

<u>Group</u>	<u>Submission and qualification of</u> <u>any of the following connectors</u>	<u>1/</u> <u>Qualifies the fol-</u> <u>lowing connectors</u>
1	M55339/28-X0001 <u>2/</u>	M55339/28-X0001 <u>2/</u> M55339/28-X0002

1/ Qualification of connectors qualifies connectors of the same body material and finish only.

2/ X denotes material.

Cross reference: See table II.

Ⓑ TABLE II. Supersession and cross reference.

Military part number	Superseded part number	
	CAGE 60617	CAGE 95077
M55339/28-30001	2084-8001-90 2084-8001-92	SF2991-6020

Custodians:

Army - CR
Navy - EC
Air Force - 85

Review activities:

Army - AR, MI
Navy - OS, SH
Air Force - 11, 99
DLA - ES

User activities:

Army - AT
Navy - AS, MC, SH
Air Force - 19

Preparing activity:

Army - CR

Agent:

DLA - ES

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